

1. In one sentence, summarize the project.

Math Tales will provide fiction and nonfiction literature connections needed to afford students a context and a rationale for learning mathematical concepts and relating those concepts to real world experiences.

2. Briefly describe the students this project serves.

Conder Arts Integrated Magnet School currently serves 640 students beginning in a four year old child development program and continuing through fifth grade. Once considered a suburban school, Conder in 2005-2006 has many of the characteristics and challenges of an urban school such as having a highly transient population. We are a low-socioeconomic school that serves more than a ninety percent minority population, with eighty-one percent qualifying for free and/or reduced meals. After reviewing the results of our 2005 Palmetto Achievement Challenge Test (PACT) math report, we believe our students can achieve greater success in mathematics. To help our students increase their mathematical problem solving capabilities, we need to provide fiction and non-fiction literature to fifth grade students. *Math Tales* will enhance the mathematical and literacy environment for six teachers and one hundred five fifth grade students.

Goals(s), Objectives, Evaluation Measures, and Alignment to Curriculum Standards

3. State the goal(s) and performance objective(s) for the project.

The goal of *Math Tales* is to provide fiction and nonfiction math related literature to fifth grade students to be used for read alouds, shared reading, and independent reading during each mathematical strand of study (Numbers and Operations, Geometry, Measurement, Algebra, and Data Analysis/Probability) to aid in improving MAP and PACT scores. Integrating math and literature will provide a context for mathematics that relates to our students' lives and their

interests which will assist in developing their problem solving skills. It will also offer opportunities for teachers to teach the necessary skills for reading and comprehending fiction and non-fiction texts. During shared and independent reading, students will be able to develop, justify, expand, and share their thinking. These experiences will help increase both Math and English Language Arts (ELA) PACT scores.

By May 2007:

- Student performance will increase by fifteen percent on the MAP (Measures of Academic Performance) Math test.
- Student performance will increase by fifteen percent on PACT ELA and MAP Reading tests.

4. How will you evaluate progress toward objectives? What data will you collect and examine? How will you use this data?

The *Math Tales* program will be evaluated through both formative and summative measures. Pre- and Post tests will be administered during each unit of study. Accelerated Reader tests will be taken during each unit of study. Math and Reading MAP data for all participating students will be disaggregated. The data from the 2006 and 2007 PACT will be disaggregated and compared once it has been made available during the summer months.

5. State how the proposed project is aligned with curriculum standards.

The goal of *Math Tales* is to provide fiction and non-fiction literature to improve math and reading performance for fifth grade students. These books will be used as read-alouds to introduce math lessons and for independent reading during each of the five mathematical strands

of study. After reviewing our state's Math and ELA standards, the *Math Tales* team aligned our project goal of providing fiction and nonfiction math related literature with both the fifth grade ELA Reading Process/Comprehension standards and the fifth grade Math standards.

Strategies, Activities, and Timeline

6. Explain why you chose each planned activity (the rationale).

Research indicates children's books can invite students into the world of mathematics. These stories can spark our student's mathematical imaginations in ways that activities in textbooks and workbooks cannot. Students for whom math is "their thing" are able to look at books in a new way. Students for whom math is not "their thing" are able to experience math through their love for books. *Math Tales* will provide fiction and non-fiction literature necessary to motivate students to think and reason mathematically thereby positively impacting MAP and PACT scores.

Our math coach at Conder Elementary will work with the *Math Tales* team to identify math standards addressed in the literature selections, and to incorporate these books into both math and reading lessons. We will use the books as a context to introduce math lessons, shared/ independent reading, and Accelerated Reader tests. After the unit of study is completed, each classroom will receive a new set of books to use in the classroom.

EIA Project Overview Chart

Please complete a chart for each objective.

| Goal: Students involved in this program will read fiction and non-fiction texts to improve math and reading performance. | | | |
|---|---|---|--|
| Objective: 1. By the end of the 06–07 school year, <u>50%</u> of students involved in this program will improve their PACT Math and MAP Math scores by at least <u>15%</u> . | | | |
| Start Date and End Date | Activities to Achieve Objective | Evaluation Data and Measures (evidence of accomplishment) | Relevant Curriculum Standards |
| 1. August 2006 | Order fiction and non-fiction literature books with topics for each of the 5 math strands. | Order samples of books. Read books and identify curriculum standards addressed. Order sets of books in each of the 5 math strand areas. | Math- (Numbers & Operations) N.I.A.1, N.I.C.3, N.D.1, N.I.D.2 Data Analysis & Probability D.II.C.1, D.III.A.1, D.IV.B.2 Algebra and Geometry A. I.A.1, A.I.B.1, A.I.B.2, A.III.1 Measurement- M.II.D.1, M.II.D.2, M.II.E.1 |
| 2. August 7- October 14, 2006 | 1. Math instruction will focus on the Strand of Numbers and Operations. 2. Students will be taught 6 math lessons using the Math Tales books as a context. | 50% of students will score at least 85% on chapter/unit tests during the Number and Operations unit of study. | Math- (Numbers & Operations) N.I.A.1, N.I.C.3, N.D.1, N.I.D.2, N.I.E.1, N.I.E.2, N.I.F.2, N.II.A.1, N.II.C.1, N.III.C.1 |
| 3. September 2006 | Administer MAP Math test (pretest). | Disaggregating of MAP Math scores. | Math- (Numbers & Operations) N.I.A.1, N.I.C.3, N.D.1, N.I.D.2 Data Analysis & Probability D.II.C.1, D.III.A.1, D.IV.B.2 Algebra and Geometry A. I.A.1, A.I.B.1, A.I.B.2, A.III.1 Measurement- M.II.D.1, M.II.D.2 |

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|---|---|--|---|
| 4. October 17,- November 21, 2005 | 1. Math instruction will focus on the Data Analysis/Probability strand. 2. Students will be taught 4 Math lessons using the Math Tales books as a context. | 50% of students will score at least 85% on chapter/unit tests during the Data Analysis & Probability unit. | Math- (Data Analysis & Probability) D.I.A.1, D.I.B.1, D.I.C.2, D.I.D.1, D.II.C.1, D.III.A.1, D.IV.B.2 |
| 5. November 28- February 10, 2006 | 1. Math instruction will focus on the strands of Geometry/ and Algebra. 2. Students will be taught 6 math lessons using the Math Tales books as a context for learning the concepts. | 50% of students will score at least 85% on chapter/unit tests during the Geometry/Algebra unit. | Math- (Algebra and Geometry) A. I.A.1, A.I.B.1, A.I.B.2, A.III.1, A.IV.A.1, A.IV.B.1, A.IV.B.2, A.IV.B.3, G.I.A.1, G.I.B.1, G. I.E.1, G.II.B.1, G.II.C.1, G.III.A.1, G.IV.A.1, G.IV.B.1 |
| 6. February 13- March 2007 | 1.Math instruction will focus on the measurement strand 2. Students will be taught 4 math lessons using the Math Tales books as a context. | 1. 50% of students will score at least 85% on tests during the Measurement unit. | Math- (Measurement) M.I.A.1, M.I.A.2, M.I.A.5, M.I.D.1, M.II.A.1, M.II.B.1, M.II.B.2, M.II.D.1, M.II.D.2, M.II.E.1 |
| 8. March 2007 | Administer MAP test (posttest) | 1. Disaggregate MAP Reading and Math scores. 2. Compare September MAP scores to March MAP scores. 3. Propose ways in which to improve future integration of Math and Literature. | Math- (Numbers & Operations) N.I.A.1, N.I.C.3, N.D.1, N.I.D.2 Data Analysis & Probability D.II.C.1, D.III.A.1, D.IV.B.2 Algebra and Geometry A. I.A.1, A.I.B.1, A.I.B.2, A.III.1 Measurement- M.II.D.1, M.II.D.2, M.II.E.1 |

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| Objective: By the end of the 06–07 school year, <u>50%</u> of students involved in this program will improve their PACT ELA and MAP Reading scores by at least <u>15%</u> . | | | |
| Start Date and End Date | Activities to Achieve Objective | Evaluation Data and Measures (evidence of accomplishment) | Relevant Curriculum Standards |
| 1. August 2006 | Order fiction and non-fiction literature books with topics for each of the 5 math strands. | Order samples of books. Read books and identify curriculum standards addressed. Order sets of books in each of the 5 math strand areas. | Reading- 5-R1.1, 5-R1.2, 5-R1.3, 5-R1.5, 5-R1.6, 5-R1.7, 5-R2.7, 5-R3.5 |
| 2. August 7- October 14, 2006 | 1. Math Tales books will be used to reinforce reading comprehension skills. 2. Math Tales books will be available for shared/ independent reading. 3. Students will select at least 4 of the books and take an AR (Accelerated Reader) test. | 50% of students will score at least 80% on AR tests. | Reading- 5-R1.1, 5-R1.2, 5-R1.3, 5-R1.5, 5-R1.6, 5-R1.7, 5-R2.7, 5-R3.5 |
| 3. September 2006 | Administer MAP Reading and Math test (pretest). | Disaggregating of MAP Reading and Math scores | Reading- 5-R1.1, 5-R1.2, 5-R1.3, 5-R1.5, 5-R1.6, 5-R1.7, 5-R2.7, 5-R3.5 |
| 4. | 1. Math Tales books will be used to | 50% of students will score at least | |

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|---|--|---|--|
| October 17,- November 21, 2005 | reinforce reading comprehension skills. 2. Math Tales books will be available for shared/ independent reading. 3. Students will select at least 3 of the books and take an AR (Accelerated Reader) test. | 80% or more on AR tests. | Reading- 5-R1.1, 5-R1.2, 5-R1.3, 5-R1.5, 5-R1.6, 5-R1.7, 5-R2.7, 5-R3.5 |
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